REMARKS

Claims 16-32 are now present in this application.

An Abstract has been presented, the Specification has been amended, claims 1-15 have been canceled without prejudice or disclaimer of the subject matter contained therein and claims 16-32 are now present in this application. Reconsideration of the application, as amended is respectfully requested.

It is noted that an Information Disclosure Statement was filed in the above-identified application on April 20, 2001. The four U.S. Patents cited in this Information Disclosure Statement were also cited by the Examiner on the PTO-892 with the September 24, 2003 Office Action. However, the Japanese document from the April 20, 2001 Information Disclosure Statement was not yet cited. This Japanese document was cited in the International Search Report. Copies of all documents from the International Search Report should have been forwarded from the International Bureau. They were nonetheless again submitted on January 2, 2002. Therefore, the Examiner has copies of all of the documents from the April 20, 2001 Information Disclosure Statement. Also, the relevance of the Japanese document can be found from the Abstract which was attached thereto as well as from the English language Search Report which was supplied to the USPTO. **Accordingly, the Examiner is now respectfully requested to provide an initialed copy of the PTO-1449 Form indicating his consideration of all documents cited in the**

April 20, 2001 Information Disclosure Statement (in particular, Japanese document 63-18041).

Since the instant application is a National Phase of a PCT application, an Abstract was already provided by the International Bureau. Nonetheless, in order to expedite prosecution, another Abstract is attached herewith as requested by the Examiner. Withdrawal of the objection to the Abstract is respectfully requested.

Claims 1-10 and 12-15 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Rouch et al. (U.S. Patent 5,170,103). This rejection is respectfully traversed.

Claim 11 stands rejected under 35 U.S.C. § 103 as being unpatentable over Rouch et al. This rejection is respectfully traversed.

The patent of Rouch et al. discloses an active vibration control device. An actuator 64 is centrally located within this device. A hinge 56 is provided and a pivot point 60 which will enable the solid mass 54 to rotate. This rotation is illustrated by an arrow 62. As set forth in column 5, beginning at line 37, the rotation about the pivot points 60 by the solid mass 64 defines a plane which is parallel to the plane defined by the intersection of the longitudinal axis 13 and the transverse axis 30.

In all the different embodiments disclosed in Rouch et al., the different actuators are all centrally located in the device. In

the present invention, on the other hand, an actuator is provided being spaced from the center, longitudinal axis. For example, as set forth in independent claim 16, a device for increasing surface smoothness of a turned surface is provided. This device comprises a control system with a control unit and an actuator. The actuator will impart a vibrating motion in a lateral direction to the tool holder when the tool holder moves in a vibrating manner alternatingly in and against the direction of feed when the device is mounted in a turning lathe. This actuator is spaced from a central, longitudinal axis of the tool holder. Thus, alignment or balancing of the actuator is not necessary. A simplified device can be had with the present invention.

In independent claim 20, an actuator is also recited which is spaced from the center, longitudinal axis of the tool holder. The turning lathe of independent claim 25 also recites the actuator being spaced from the center, longitudinal axis of the tool holder. Finally, independent method claim 29 recites the actuator. Again the actuator is spaced from a center, longitudinal axis of the tool holder and will cause the vibrating motion. Such an arrangement is not found in the Rouch et al. patent.

The provision of the actuator in the present invention provides a simplified but effective device for increasing surface smoothness. The complicated arrangement of Rouch et al. is avoided. Various control elements are not needed. Rather, a simple

piezoceramic element can be provided as the actuator. Dependent claims 19, 24, 28 and 32 bring out this piezoceramic element. It is noted that the Examiner has alleged that it would be obvious to use a piezoceramic sensor. However, it is not the sensor which is being used. The actuator is the piezoceramic element. It is respectfully submitted that this is not taught in the Rouch et al. patent and would not be an equivalent. Rouch et al. provides for a rather complicated arrangement and it is questioned whether such an arrangement would work if the actuator 64 were replaced with a piezoceramic electric element. Because a piezoceramic electric element in the present invention is located off the central, longitudinal axis, a vibration movement rather than a longitudinal reciprocation would be provided.

Nonetheless it is respectfully submitted that the independent claims of the present application set forth a device, a turning tool holder, a turning lathe, and a method which is neither suggested nor rendered obvious by the priority utilized by the Examiner. Accordingly, it is respectfully requested that the 35 U.S.C. § 102(b) and 103 rejections should now be reconsidered and withdrawn.

Because the additional prior art cited by the Examiner has been included merely to show the state of the prior art and has not been utilized to reject the claims, no further comments concerning these documents are considered necessary at this time.

Conclusion

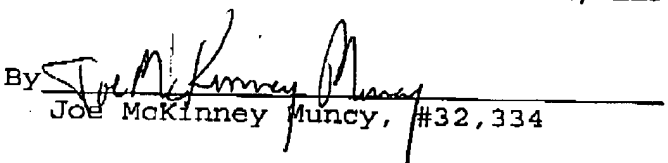
In the event that there are any outstanding matters remaining in this application, the Examiner is invited contact the undersigned at (703) 205-8000 in the Washington D.C. area

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicants respectfully petitions for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of $950.00 is attached hereto.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
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Attachment(s): Revised Abstract of the Disclosure

(Rev. 02/12/2004)

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Abstract of the Disclosure

A device increases the surface smoothness of a turned surface. The device comprising a control system with a control unit and an actuator connectible to the control unit and connectible with a tool holder. The actuator is adapted to impart a vibrating motion in the lateral direction to the tool holder. A method will also increase the surface smoothness of a turned surface, comprising the step of controlling the vibrations of the tool holder during turning. The method also comprises the step of imparting a vibrating motion in the lateral direction to the tool holder. Moreover, a turning lathe and a turning tool holder which like the device are designed to generate vibrating motion in the lateral direction.